



# United States Department of the Interior

## NATIONAL PARK SERVICE

Acadia National Park

P.O. Box 177

Bar Harbor, Maine 04609

IN REPLY REFER TO:

L7617(SACR)

### **FINDING OF NO SIGNIFICANT IMPACT**

#### **Wildland Fire Management Plan**

#### **Saint Croix Island International Historic Site**

The National Park Service proposes to implement a wildland fire management plan (WFMP) at Saint Croix Island International Historic Site.

The authorized boundary of Saint Croix Island International Historic Site includes just 45 acres. Saint Croix Island International Historic Site is located on U.S. Route 1, about 6 miles south of Calais, Maine, in the community of Red Beach, along the Saint Croix River between the United States and Canada. The site consists of Saint Croix Island, a 6.5-acre island in the Saint Croix River, and two mainland portions totaling 38.5 acres; one on the western shore of the Saint Croix River overlooking the island, while the other section is located nearby, just across Route 1.

An environmental assessment (EA) was prepared to better understand the environmental effects associated with managing wildland fire. Actions that were evaluated included fire suppression, manual and mechanical reduction of hazard fuels, managing fuels near structures and boundaries, research of prescribed fire use, and public education. Potentially affected resources identified during scoping and evaluated in the EA included soils, surface water resources, vegetation, wildlife, air quality, visitor use and experience, human health and safety, and cultural resources.

### **DECISION**

The National Park Service is selecting Alternative 2 as the preferred alternative in the EA and will develop a WFMP. Due to the relatively small size of the park, Saint Croix Island International Historic Site will be managed as a single fire management unit (FMU).

The WFMP will call for suppressing all wildland fires, providing for manual and mechanical hazard fuel reduction treatments to maintain designated open areas, reducing fuel loadings within the park, creating fuel breaks along park boundaries, creating and maintaining defensible space around park structures on the mainland portion of the park, and researching the future use of prescribed fire as a management tool. Defensible spaces are areas around structures kept free of

flammable vegetation to help prevent the spread of wildland fires towards those structures. Management objectives of the WFMP will include:

- Suppressing all wildland fires.
- Protecting and maintaining the historic and cultural landscape on Saint Croix Island and the mainland.
- Reducing hazard fuel accumulations around park structures, along park boundaries and in areas of high visitor use, which in turn:
  - Reduces the threat of catastrophic wildland fire, and reduces the risk of negative impacts to park resources and park neighbors in the event of a wildland fire.
  - Improves conditions for firefighter and public safety, and reduces suppression costs in the event of a wildland fire.
    - In all cases, fuels considered to be “hazards” will primarily be dead, down, and diseased timber, ladder fuels, non-ornamental shrubs, undergrowth and fallen limbs, of less than 4 inches diameter at breast height (dbh) outside the ‘resource protection zone’ as described in the Maine Mandatory Shoreland Zoning Act. Remaining live trees will be limbed to approximately 12 feet from the base of tree. All downed trees larger than 24 inches in diameter may remain in the fuel break, but must lie flush to the ground, with limbs cut and removed. All debris will either be chipped on-site or hauled from the park to an approved location for disposal.

The appropriate management response (AMR) will be applied to every fire suppression action taken within the park. The AMR is any specific action suitable to meet fire management unit (FMU) objectives. Since the park is being managed as one FMU, this will also apply to the wildland fire management plan objectives. Typically, the AMR ranges across a spectrum of tactical options (from monitoring to intensive management actions). The AMR is developed by using strategies and objectives identified in the wildland fire management plan. The AMR for fires within the park will be developed in cooperation with the Calais Fire Department, who will provide the principle wildland fire response to the park. All wildland fires in the park, regardless of origin will be suppressed in a manner that minimizes adverse environmental and cultural impacts resulting from suppression activities. Examples of suppression tactics that might cause environmental harm include building fire lines within known cultural areas and excessive tree cutting. These and tactics with similar adverse effects will be avoided whenever possible. All wildland fire suppression activities will adhere to minimum impact suppression tactics (MIST) guidelines as outlined in Section 2.3 *Mitigation Measures and Monitoring*. The concept of MIST is to use the least amount of forces necessary to effectively achieve the fire management protection objectives consistent with resource management objectives. It takes into account the impacts of suppression tactics and their long-term effects when determining how to implement an appropriate suppression response. In some cases MIST may indicate that cold trailing or wet line may be more appropriate than constructed hand line. Cold trailing is a method of controlling a partly dead fire edge by carefully inspecting and feeling with the hand for heat to detect any fire, digging out every live spot and trenching any live edge. A wet line is a line of water sprayed along the ground that serves as a temporary control line from which to ignite or stop a low

intensity fire. Individual determinations will be dependent on the specific situation and circumstances of each fire. Specific minimum impact suppression tactics include:

- Keeping fire engines or slip-on units on existing roads;
- Restricting the use of heavy equipment such as bulldozers or plows for constructing fire lines. A tractor with box blade or disc will be used for fire line construction only in extreme situations and only on the mainland portion of the site when high value resources are at risk, and then only with the authorization of the superintendent or designee;
- Using existing natural fuel breaks and human-made barriers, wet line, or cold trailing the fire edge in lieu of hand-line construction whenever;
- Keeping fire line widths as narrow as possible when they must be constructed;
- Avoiding ground disturbance within known natural and cultural resource locations.
- Using soaker hose, sprinklers or foggers in mop-up; avoid boring and hydraulic action;
- Minimizing tree cutting;
- All suppression actions will utilize the appropriate management response derived from the fire management objectives and developed in cooperation with the Calais Fire Department;
- Protecting air and water quality, scenic vistas, and other resources by complying with the Clean Air Act, the Clean Water Act, and all other applicable federal, state, and local laws and requirements.

Manual and mechanical hazard fuel treatments (e.g. chainsaws, mowers, and brush hogs) will be used to maintain designated open areas on Saint Croix Island (roughly 5 acres), reduce fuel loadings in high visitor use areas within the mainland portion of the park, create fire breaks along the park's mainland perimeter, and maintain defensible space around park buildings. All hazard fuel reduction treatments will be reviewed and approved by the park's natural and cultural resources specialists prior to implementation.

Except where restricted by law, 10-foot-wide fire breaks will be created by removing hazard fuels along the vegetated sections of the mainland park unit boundary, which totals approximately 2,855 linear feet and 0.65 acres. The boundary fire breaks will be created by mechanical and manual means through the use of brush hogs, chainsaws, chippers, and hand tools. The cleared vegetation will either be chipped or hauled off site.

Heavy concentrations of finer fuels (dead twigs, branches limbs, fallen tree tops, etc) will be removed from areas of high visitor use on the mainland sections of the park. When dried, these fuels are readily available for burning. Since the only known wildland fires within the park have been human caused, removing these fuels from the proximity of park visitors will reduce the potential for the start and spread of wildland fires within the park.

Defensible space around each of the park's structures will be created and maintained by regular mowing and removing hazard fuels, to the greatest extent possible, around each of the park's structures to a distance of no less than 30-feet. Hazard fuels that will be removed will be dead,

down, and diseased timber, ladder fuels, non-ornamental shrubs, undergrowth and fallen limbs, and non-ornamental trees of less than 4 inches diameter at breast height (dbh). Remaining live trees will be limbed to approximately 12 feet from the base of tree. These standards will be modified, where appropriate to maintain historical and culturally significant landscapes. Written prescriptions for these treatments will be developed by the park's fire management staff and reviewed and approved by the park's natural and cultural resource specialists prior to any treatment work around park structures.

While the use of prescribed fire as a management tool in the park is not being considered in this wildland fire management plan, its use as a management tool in future wildland fire management plans has not yet been totally rejected. Under this alternative, the park may research prescribed fire use through both qualitative (e.g. literature reviews, guidance from USFWS, who has experience in applying prescribed fire to the fuel types found in the park and in the general area of the park) and quantitative research (test plots on the island) to determine if prescribed fire will be a useful and beneficial management tool at the park. The results of this research will be used to determine whether prescribed fire use will be included in future wildland fire management plans.

A program to educate park employees and the public about the scope and effects of wildland fire and prescribed fire will be developed. A wildland/urban interface outreach program will be developed to provide local homeowners with information on how to protect their homes from wildland fire. This program will include onsite evaluations of homeowner properties and recommendations for improving the survivability of their properties.

## **OTHER ALTERNATIVES CONSIDERED BUT NOT SELECTED**

### ***The No Action Alternative***

Under this alternative, the park would continue to operate without the guidance of a wildland fire management plan. All wildland fires in the park, regardless of origin, would be declared wildland fires and suppressed. All wildland fire suppression would continue to be conducted by the Calais Fire Department without an agreement with the National Park Service concerning resource management objectives.

## **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The preferred alternative is also the environmentally preferred alternative. The environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed by §101 of the National Environmental Policy Act (NEPA). This includes alternatives that:

- 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- 2) ensure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;

- 3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- 4) preserve important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- 5) achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

In essence, the environmentally preferred alternative would be the one(s) that "causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources."

In this case, Alternative 2 is the environmentally preferred alternative, since it best meets goals 1, 2, 3, and 4 described above. Under this alternative, suppressing wildland fires, creating fire breaks around the park perimeter, reducing hazard fuel loadings, and creating defensible space around park structures would help protect park resources and adjacent lands and structures from the threat of wildland fires. Finally, Alternative 2 best protects and helps preserve the historic, cultural, and natural resources in the park for current and future generations.

## **THE SELECTED ALTERNATIVE AND SIGNIFICANCE CRITERIA**

As defined at 40 CFR §1508.27, from the regulations of the Council on Environmental Quality that implement the provisions of NEPA, significance is determined by examining the following criteria:

***Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.***

There are overall benefits to the human and natural environment at Saint Croix Island International Historic Site from the selected action. There will be beneficial effects on the human health and safety of the park's visitors, staff, and neighboring residents, on park facilities, cultural resources, and vegetation communities with its hazard fuels reduction along sections of the park's perimeter and creation of defensible space around park structures.

The selected alternative does not entail any significant adverse impacts on soils, wildlife, human health and safety, and visitor use and experience. These impacts are minor, localized, and short-term. None of the impacts rise to the level of significance.

***The degree to which the proposed action affects public health or safety***

When conducting fire management activities, human health and safety is the primary concern. Under the selected alternative, every caution will be taken during fire management activities and the affects to public health and safety will be negligible. The selected alternative provides the best protection since manual and mechanical hazard fuel treatments will help reduce hazardous fuels in the park and minimize the fire risk to the park staff and nearby private residences and communities.

***Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, and wetlands.***

As described in the EA, the intent of the action alternatives is to provide the maximum amount of protection for the important natural and cultural resources of the park. After consultation with the federally recognized Maine tribes and the Maine Historic Preservation Commission (SHPO), it has been determined that the implementation of the WFMP will result in no significant adverse effects to cultural resources because during fire management activities mitigation measures will be incorporated to protect these areas.

***The degree to which the effects on the quality of the human environment are likely to be highly controversial.***

There were no controversial impacts identified during the analysis done for the EA, and no controversial issues were raised during the public review of the EA.

***Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.***

There are no identified risks associated with the selected alternative that are unique or unknown, nor are there effects associated with the selected alternative that are highly uncertain as identified during the analysis for the EA or during the public review of the EA.

***The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.***

The selected alternative does not establish a precedent for any future actions that may have significant effects, nor does it represent decisions about future considerations. The purpose of this action is to develop a wildland fire management plan and program that protects the human environment, including natural and cultural resources, of the park from wildland fire, while minimizing the impacts from suppression tactics, and minimizes the fire risk to park resources and adjacent lands from hazardous fuel accumulations.

Under such a program, manual and mechanical hazard fuel reduction activities will be conducted over several years to reduce hazard fuels. This program will be evaluated and, if necessary, revised during future revisions to the park's wildland fire management plan.

***Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.***

The EA determined that there would be no significant cumulative impacts associated with the preferred alternative.

***The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.***

Before its designation as an international historic site, Saint Croix Island National Monument was automatically listed on the National Register of Historic Places when the Historic Preservation Act of October 15, 1966, was enacted (16 USC 470, et seq.). However, National Register of Historic Places documentation was not prepared and no individual structures were mentioned as contributing to the significance of the site. In recent years, the National Park Service has been working in consultation with the SHPO, to determine which resources are eligible for the National Register.

Cultural resources at the park are divided between Saint Croix Island and the mainland. Saint Croix Island contains an 1885 boat house and a 1904 memorial tablet. Archeological resources on the island include features associated with the 1604 French settlement, traces of Native American occupation, and remnants of 19th century farming and coastal light station activities.

The mainland portion of the park contains the McGlashan-Nickerson house and the Pettegrove-Livingstone house and garage, both of which are on the National Historic Register. Landscape features associated with the McGlashan house include an apple orchard and garden. In addition, the Pettegrove-Livingstone property is also considered historically significant as a Downingesque landscape. The Lane-Robb house is ineligible to be on the Register individually but may contribute to a historic district nomination. There are also possible archeological remains of activities associated with 19th century granite and plaster industries, and a Native American site. Both the island and the mainland are of enduring cultural significance to the Wabanaki people, in particular, the Passamaquoddy, who continue to use these areas for ceremonial purposes to the present day.

The EA was written in compliance with Section 106 of the National Historic Preservation Act, and it was determined by consultation with the federally recognized Maine tribes and the SHPO that developing and implementing a WFMP will have no adverse effect to the cultural resources of the park. A copy of that determination is included in the appendix of the referenced WFMP.

***The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.***

Consultation with the U.S. Fish and Wildlife Service has determined that there are no threatened or endangered species found within or adjacent to the park, resulting in a determination that there will be no adverse impacts to any state or federally listed threatened or endangered species. A

copy of that determination is included in the appendix of the referenced wildland fire management plan.

***Whether the action threatens a violation of Federal, state, or local law or requirements imposed for the protection of the environment.***

The development and implementation of the wildland fire management plan violates no federal, state, or local environmental protection laws. All actions would comply with federal, state, and local laws and regulations, including the Mandatory Shoreland Zoning Act and other core laws of the Maine Coastal Program.

***Impairment***

In addition to reviewing the list of significance criteria, the National Park Service has determined that the selected alternative will not cause impairment to the critical resources and values of the park. This conclusion is based on a thorough analysis of the environmental impacts described in the Draft Wildland Fire Management Plan EA, public comment, relevant scientific studies, and the professional judgment of the decision-maker guided by the direction in NPS *Management Policies 2001*. The selected alternative will result in only negligible to minor adverse impacts to air quality resources, primarily in the form of smoke impacts to visibility. Overall, the plan will result in benefits to park resources and values, opportunities for their enjoyment, and it will not result in impairment.

**PUBLIC INVOLVEMENT**

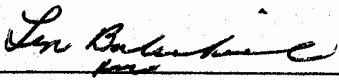
The environmental assessment was made available for public review and comment during a 30-day period ending September 13, 2004. A legal notice announcing its availability was published in the local paper on August 12, 2004. Only one comment was received and it was in favor of implementing Alternative 2.

**FINDING OF NO SIGNIFICANT IMPACT**

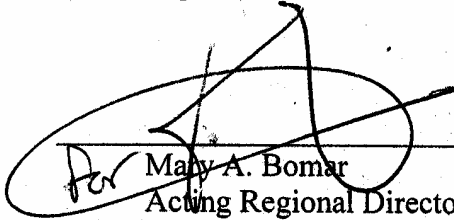
The selected alternative will not constitute an action that normally requires preparation of an environmental impact statement (EIS). The selected alternative will not have a significant affect on the human environment. Negative environmental impacts that could occur are negligible or minor in intensity. There are no significant impacts on public health, public safety, threatened or endangered species, sites or districts listed in or eligible for listing in the National Register of Historic Places, or other unique characteristics of the region. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified. Implementation of the action will not violate any federal, state, or local environmental protection law.



Based on the foregoing, it has been determined that an EIS is not required for this project and thus will not be prepared.

Recommended:   
Sheridan Steele  
Superintendent, Acadia National Park

5/4/05  
Date

Approved:   
Mary A. Bomar  
Acting Regional Director, Northeast Region  
National Park Service

6/4/2005  
Date

#### ATTACHED REFERENCES

National Park Service. August 2004. Saint Croix Island International Historic Site Wildland Fire Management Plan Environmental Assessment. Saint Croix Island International Historic Site, c/o Acadia National Park, P.O. Box 177, Bar Harbor, Maine 04609.

National Park Service. 2005. Saint Croix Island International Historic Site Wildland Fire Management Plan. Saint Croix Island International Historic Site, c/o Acadia National Park, Bar Harbor, Maine 04609.

Parks Canada. September 13, 2004. Correspondence: Public Comment on Saint Croix Island International Historic Site Fire Management Plan Environmental Assessment. File L7617(SACR) held at Park Headquarters, Acadia National Park, Bar Harbor, Maine 04609.